**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

BLACKBIRD TECH LLC d/b/a BLACKBIRD TECHNOLOGIES,	))))
Plaintiffs,	) C.A. No. 16-413-GMS
	)
v.	) **JURY TRIAL DEMANDED**
	)
ADVANCED DISCOVERY INC.,	))
Defendant.	))
BLACKBIRD TECH LLC d/b/a BLACKBIRD TECHNOLOGIES,	)))
Plaintiffs,	) C.A. No. 16-414-GMS
	)
v.	) **JURY TRIAL DEMANDED**
	)
SYSTEM ONE HOLDINGS, LLC,	))
Defendant.	))
BLACKBIRD TECH LLC d/b/a BLACKBIRD TECHNOLOGIES,	)))
Plaintiffs,	) C.A. No. 16-415-GMS
	)
v.	) **JURY TRIAL DEMANDED**
	)
DISCOVERREADY LLC,	))
Defendant.	))
BLACKBIRD TECH LLC d/b/a BLACKBIRD TECHNOLOGIES,	)))
Plaintiffs,	) C.A. No. 16-416-GMS
	)
v.	) **JURY TRIAL DEMANDED**
	)
EVD, INC.,	))
Defendant.	)

BLACKBIRD TECH LLC d/b/a BLACKBIRD TECHNOLOGIES,)))	
Plaintiffs,)	C.A. No. 16-417-GMS
)	
v.)	**JURY TRIAL DEMANDED**
)	
INNOVATIVE DISCOVERY LLC,))	
Defendant.))	
BLACKBIRD TECH LLC d/b/a BLACKBIRD TECHNOLOGIES,)))	
Plaintiffs,)	C.A. No. 16-418-GMS
)	
v.)	**JURY TRIAL DEMANDED**
)	
KCURA LLC,))	
Defendant.))	
BLACKBIRD TECH LLC d/b/a BLACKBIRD TECHNOLOGIES,)))	
Plaintiffs,)	C.A. No. 16-419-GMS
)	
v.)	**JURY TRIAL DEMANDED**
)	
LDISCOVERY, LLC,))	
Defendant.))	
BLACKBIRD TECH LLC d/b/a BLACKBIRD TECHNOLOGIES,)))	
Plaintiffs,)	C.A. No. 16-420-GMS
)	
v.)	**JURY TRIAL DEMANDED**
)	
TRANSPERFECT, INC.,))	
Defendant.))	

BLACKBIRD TECH LLC d/b/a BLACKBIRD TECHNOLOGIES,	)))	
Plaintiffs,	)))	C.A. No. 16-421-GMS
v.	))	**JURY TRIAL DEMANDED**
UNITEDLEX CORPORATION,	))	
Defendant.	)))	
BLACKBIRD TECH LLC d/b/a BLACKBIRD TECHNOLOGIES,	)))	
Plaintiffs,	)))	C.A. No. 16-422-GMS
v.	))	**JURY TRIAL DEMANDED**
XACT DATA SERVICES, INC.,	))	
Defendant.	)))	

DEFENDANTS' OPENING MEMORANDUM IN SUPPORT OF THEIR MOTION TO DISMISS PURSUANT TO FEDERAL RULE OF CIVIL PROCEDURE 12(b)(6)

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I.   NATURE AND STAGE OF THE PROCEEDINGS

Plaintiff Blackbird Tech LLC ("Blackbird") alleges that kCura and nine of its channel resellers, Advanced Discovery, System One Holdings, DiscoverReady, EVD, Innovative Discovery, LDiscovery, TransPerfect, UnitedLex, and Xact Data (collectively, "Defendants"), infringe United States Patent No. 7,809,717 (the "'717 patent"). *See* D.I. 1 in C.A. No. 16-418-GMS, at ¶ 19; *see also* D.I. 1 in C.A. Nos. 16-413-GMS, 16-414-GMS, 16-415-GMS, 16-416-GMS, 16-417-GMS, 16-419-GMS, 16-420-GMS, 16-421-GMS, 16-422-GMS. [1] Defendants move to dismiss the complaints under Fed. R. Civ. P. 12(b)(6) because the asserted claims of the '717 patent cover patent-ineligible subject matter under 35 U.S.C. § 101.

II.   SUMMARY OF THE ARGUMENT

1.   Abstract ideas are not eligible for patent protection, and implementing an abstract idea on a generic computer does not rescue an otherwise ineligible patent claim. *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) (citations and quotation marks omitted) ("We have long held that [Section 101] contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable. . .[M]onopolization of those tools through the grant of a patent might tend to impede innovation more than it would tend to promote it.").

2.   The asserted claims of the '717 patent are directed to the patent-ineligible abstract idea of determining a concept associated with a search query and then ranking the results based on their relevance to that concept. This is no different than what a human being does when presented with a set of documents that require organization by relevance. Indeed, as disclosed in

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[1] Blackbird's Complaints identify the wrong corporate entity for some of the Defendants. However, this issue does not affect the present motion.

the Background of the '717 patent, human beings have tried various different methods for

efficiently sorting, organizing and ranking the results of document searches. D.I. 1-1 at 1:51-2:3.

The '717 patent's asserted claims are directed to nothing more than using a generic computer to

expedite these same mental processes that humans have long performed.

3.   The asserted claims also lack an "inventive step" because they do nothing more

than apply the abstract idea using generic computers and known processes. The claims of the

'717 patent do not disclose an improvement to the functioning of the computer equipment itself.

Rather, the claims simply describe a way to expedite and/or automate the well-known idea of

organizing and ranking documents by their relevance to a concept.

4.   Because the asserted claims of the '717 patent are not patent-eligible, Blackbird's

Complaints should be dismissed in their entirety under Federal Rule of Civil Procedure 12(b)(6).

III.   **FACTUAL BACKGROUND**

A.   **The Parties**

Plaintiff Blackbird is a non-practicing entity. Defendant kCura is a leader in the

development of e-discovery management software and developed the first version of its e-

discovery Relativity software before the priority date of the '717 patent. *See, e.g.*, D.I. 1 at ¶ 15.[2]

The other defendants are channel resellers of kCura's Relativity software.

Blackbird alleges that functionality in kCura's Relativity software infringes "at least

claims 1, 10, 16 and 25" of the '717 patent. *Id.* at ¶ 19. Specifically, Blackbird contends that

Relativity infringes because it is capable of performing a "concept search" that "reveals

conceptual matches between [a search] query and the document." *Id.* at ¶¶ 15, 17.

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[2] Unless otherwise cited, the D.I. citations are to the docket in *Blackbird v. kCura*, C.A. No. 16-
418-GMS (D. Del.).

B.   The '717 Patent

The patent application that became the '717 patent was filed on September 25, 2006. D.I. 1-1. It issued on October 5, 2010, before the Supreme Court's 2014 decision in *Alice*, 134 S. Ct. at 2347. The '717 patent was first assigned to the University of Regina in Regina, Saskatchawan, Canada (*see* D.I. 1-1), and was subsequently assigned to Blackbird. D.I. 1 at ¶ 8.

1.   Background of the '717 Patent

The purported invention claimed in the `717 patent was intended to overcome difficulties that humans faced when confronting a large number of search results. The Background of the patent explains that search engines — which were well-known long before the '717 patent's filing date — typically provided results in a "simple list-based format" that "did not support the users … in finding a set of relevant documents." *Id.* at 1:13-57. Consequently, humans had to manually perform the process of sorting and organizing documents by their relevance. *Id.* at 1:58-65 (explaining that users could manually "review hundreds of results to determine the most relevant documents"); *id.* at 1:54-57 (acknowledging that users manually engaged in "broad[] tasks of manipulating the search results, comparing documents, or finding a set of relevant documents").

This manual sorting and ranking process, however, could be difficult to perform if the search query returned voluminous results. *Id.* at 1:39-44. As the '717 patent explains, "[i]f hundreds of document are returned, it is inefficient if not completely impractical to have a user review hundreds of results to determine the most relevant documents located in the search." *Id.* at 1:62-65. Thus, the object of the patentee's purported invention was to "overcome" that problem. *Id.* at 2:29-28. It did so by repackaging the well-known mental steps of sorting and ordering documents typically performed by humans into a computer program.

2.   The Specification of the '717 Patent

The '717 patent teaches that the claimed method is performed on a generic "data processing system," such as a personal computer. *Id.* at 4:25-32. There is nothing special about the computer used to implement the data processing system; it is a general purpose computer with conventional components. *Id.* at 4:33-5:3.

To perform the claimed method, the '717 patent explains that a "search query is input to the system." *Id.* at 8:57-58. The search query is then used to conduct a search and obtain search results. *Id.* at Abstract; *see also id.* at 2:32-36, 8:57-59.

One or more concepts associated with the search query is then determined. *Id.* at Abstract; *see also id.* at 2:36-39, 8:60-64. This is accomplished by matching the search terms against a "concept knowledge base" that "contains information relating to a field of knowledge." *Id.* at 8:60-64; *see also id.* at 9:47-50, 10:58-67; *id.* at Fig. 6. Although the specification describes a way for automatically creating the concept knowledge base, it acknowledges that it is "possible to *manually construct* the data structure containing the concept knowledge base." *Id.* at 6:14-15 (emphasis added).

Once the one or more concepts is determined, a generically defined "accordance value" is assigned to each search result document that indicates the similarity of that document to the one or more concepts. *Id.* at 9:9-13; *see also id.* at Abstract and Fig. 8. The search results are then displayed to the user ranked by their accordance values, as shown below. *Id.* at 9:25-31; *see also id.* at Abstract, 2:39-42, and 13:39-57.
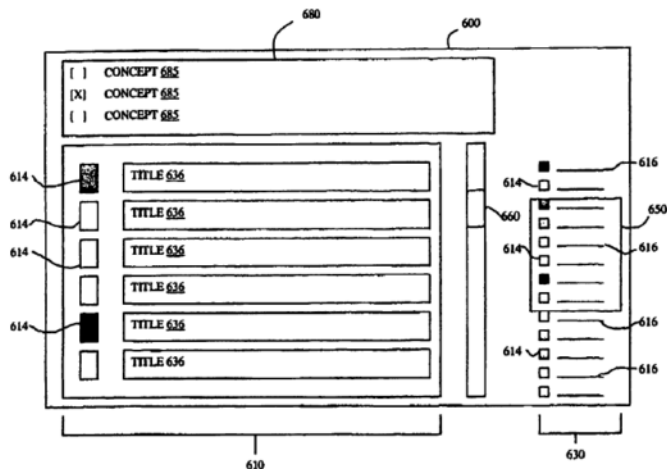
FIG. 9

3.   The Asserted Claims of the '717 Patent

Blackbird has asserted both of the '717 patent's independent claims against the

defendants. Claim 1 is a method claim, and claim 16 is system claim. As illustrated below, each

of these claims recites nothing more than generic computing elements followed by abstract ideas

performed by those generic computing elements.

Steps of Abstract Idea	Claim 1	Claim 16
	A computer implemented method of displaying search results, the computer comprising at least one processor for executing computer readable instructions stored in a memory, the method comprising:	A data processing system for displaying search results comprising: at least one processor; a memory operatively coupled to the at least one processor; a display device operative to display data; and a program module stored in the memory and operative for providing instructions to the at least one processor, the at least one processor responsive to the instructions of the program module, the program module operative for:

performing a document search	**receiving** at the computer a search query containing at least one of search term to conduct a search of a plurality of computer readable documents; **obtaining** search results comprising a first document and second document based on the at least one search term of the search query;	**receiving** a search query containing at least one search term to conduct a search of a plurality of computer readable documents; **obtaining** search results comprising a first returned document and a second returned document on the at least one search term of the search query;
determining a concept	**determining** at least one concept related to the search query by matching the at least one search term to the at least one concept in a concept knowledge base;	**determining** at least one concept related to the search query by matching the at least one search term to the at least one concept in a concept knowledge base;
ranking search results based on which documents are most relevant to the concept	**evaluating** the similarity between the first and second documents and the at least one concept by determining an accordance value indicating a similarity between the first and second documents and the at least one concept by: determining a first accordance value by evaluating the similarity between the first returned document and the at least one concept; and determining a second accordance value by evaluating the similarity between the second returned document and the at least one concept; and **displaying** the first returned document and second returned document sorted in an order based on the first accordance value and the second accordance value.	**evaluating** the similarity between a returned document and the at least one concept to determine an accordance value by determining a first accordance value by evaluating the similarity between the first returned document and the at least one concept and a second accordance value by evaluating the similarity between the second returned document and the at least one concept; and **displaying** the first returned document and second returned document sorted in an order based on the first accordance value and the second accordance value.

As shown in the above table, independent claims 1 and 16 do not describe a novel

machine or apparatus for practicing the claimed invention. Nor do the claims impose meaningful

limits on the general and abstract processes they recite, including how the search is performed,

how the concept is determined, how the search results are evaluated, how the accordance values are determined, or how the documents are displayed. Indeed, as discussed further below, a human can perform all of the limitations recited in claims 1 and 16 without assistance from a computer.

The two asserted dependent claims, claims 10 and 25, are directed to the steps of generating a first and second "document vector" which, as the '717 patent explains, is simply a representation of the "frequency of unique terms in the returned document." *Id.* at 12:43-45. As with the independent claims, the asserted dependent claims provide no meaningful limits on how the "document vector" is to be generated, nor do they recite any novel machine or apparatus for performing that step.

IV.   LEGAL STANDARD

A.   Motions to Dismiss

A court may dismiss a complaint under Federal Rule of Civil Procedure 12(b)(6) for "failure to state a claim upon which relief can be granted." Fed. R. Civ. P. 12(b)(6); *see also Everglades Game Techs., LLC v. Supercell, Inc.*, C.A. No. 14-643-GMS, 2015 WL 4999654, at *2 (D. Del. Aug. 21, 2015) (granting Rule 12(b)(6) motion to dismiss under Section 101). A court should dismiss a complaint if it does not proffer enough facts to state a claim for relief that is plausible on its face. *See Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 558-59, 570 (2007); *see also Ashcroft v. Iqbal*, 556 U.S. 662, 679 (2009) (quoting Fed. R. Civ. P. 8(a)(2)). "While courts are to accept all well-pleaded facts as true and in the light most favorable to the plaintiff, courts "are not bound to accept as true a legal conclusion couched as factual allegation." *Ashcroft*, 556 U.S. at 678 (citations and quotations omitted).

B. Patent Eligibility Under 35 U.S.C. § 101 Can and Should Be Adjudicated at the Pleading Stage

Section 101 of the Patent Act defines patentable subject matter as "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." 35 U.S.C. § 101. The Supreme Court, however, has repeatedly identified three exceptions to these categories: (1) laws of nature; (2) physical phenomena; and (3) abstract ideas. *Bilski v. Kappos*, 561 U.S. 593, 601 (2010). These exceptions have remained consistent for more than 150 years and are "part of the storehouse of knowledge of all men . . . free to all men and reserved exclusively to none." *Id*. at 602 (quoting *Funk Bros. Seed Co. v. Kalo Inoculant Co*., 333 U.S. 127, 130 (1948)).

Patent eligibility should be adjudicated at the pleading stage when the patent claims are plainly directed to an abstract idea. S*ee, e.g., Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1344-45 (Fed. Cir. 2015); O*IP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1360 (Fed. Cir. 2015); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1349 (Fed. Cir. 2014). Making this determination at the pleading stage is fully consistent with Supreme Court authority, which provides that the patent eligibility inquiry under Section 101 is a "threshold test" for receiving patent protection. *See Bilski*, 561 U.S. at 602.

Further, claim construction is not required to conduct a Section 101 analysis. *See, e.g., buySAFE, Inc. v. Google Inc.*, 765 F.3d 1350 (Fed. Cir. 2014); *CyberFone Sys., LLC v. CNN Interactive Grp., Inc.*, 558 F. App'x 988, 991 n.1 (Fed. Cir. 2014); *Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Can. (U.S.)*, 687 F.3d 1266, 1273 (Fed. Cir. 2012) (upholding Judge Stark's grant of defendant's 12(c) motion), *cert. denied*, 134 S. Ct. 2870 (2014). Thus, motions to dismiss and motions for judgment on the pleadings on Section 101 grounds—like Defendants'

motion here—are routinely decided without claim construction. *See, e.g., Alice*, 134 S. Ct. 2347

(finding subject matter ineligible without construing claims).

V.   ARGUMENT

In *Alice*, the Supreme Court addressed the framework for determining patentability under

35 U.S.C. § 101. The framework consists of a two-prong analysis: (1) determine whether a

claim is directed to patent-ineligible subject matter; and, if so, (2) "search for an inventive

concept—i.e., an element or combination of elements that is sufficient to ensure that the patent in

practice amounts to significantly more than a patent upon the [ineligible concept] itself." *See*

Alice, 134 S. Ct. at 2355 (citation and internal quotation marks omitted).

Here, the asserted claims of the '717 patent fail to satisfy the test set forth in *Alice*. They

are, therefore, invalid as a matter of law.

A.   The Independent Claims of the'717 Patent Are Impermissibly Abstract Under The First Prong of *Alice*

The first issue under *Alice* is for the Court to determine whether the claims of the '717

patent are directed to a "patent-ineligible concept," i.e., an abstract idea. *Alice*, 134 S. Ct. at

2350 (citation omitted). For software patents like the '717 patent, the court must determine

"whether the claims are directed to an improvement to computer functionality versus being

directed to an abstract idea." *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335-1336 (Fed.

Cir. 2016). As this Court has explained, examples of claims that fall into the latter category (i.e.,

an abstract idea) include those that "(1) 'simply add[ ] conventional computer components to

well-known business practices;' (2) 'use . . . an abstract mathematical formula on any general

purpose computer;' (3) recite 'a purely conventional computer implementation of a mathematical

formula;' or (4) recite 'generalized steps to be performed on a computer using conventional

computer activity.'" *VideoShare, LLC v. Google, Inc.*, C.A. No. 13-990-GMS, 2016 WL

4137524 at *4 (D. Del. Aug. 2, 2016) (quoting *In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 612 (Fed. Cir. 2016)).

Here, the independent claims of the '717 patent are undeniably directed to an abstract idea: using a conventional computer to carry out the generalized steps of conducting a search based on a search query, determining a concept associated with a search query, and then ranking the search results based on which documents are most relevant to that concept. The specific steps recited in the claims are generic and lack any explanation as to how this abstract idea is performed — "receiving at the computer a search query," "obtaining search results," "determining at least one concept related to the search query," "evaluating the similarity between the first and second documents," "determining a first accordance value by evaluating the similarity," "determining a second accordance value by evaluating the similarity" and "displaying the first returned document and second returned document." The claims merely tie a generic computer to processes by which individuals have routinely sorted and organized documents.

Indeed, as discussed above, the Background of the '717 patent concedes that humans have long been capable of ranking search results based on similarities of concepts. D.I. 1-1 at 1:45-65. While the use of a computer as described in the '717 patent may expedite the process because it can parse the large lists of documents more quickly than a human could, it adds nothing of patentable significance to the claims. The claims thus cover patent ineligible subject matter *See, e.g., Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015) ("[O]ur precedent is clear that merely adding computer functionality to increase the speed or efficiency of the process does not confer patent eligibility on an otherwise abstract idea."); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011)

(claims were directed to patent ineligible subject matter because they "merely claim[ed] a software implementation of a purely mental process that could otherwise be performed without the use of a computer").

In any event, the claims of the '717 patent are not limited to sorting large groups of documents where a computer might be significantly faster than a human. Instead, they require only two documents. In this scenario, it is questionable whether a computer would provide any advantage at all. *See Planet Bingo, LLC v. VKGS LLC*, 576 F. App'x 1005, 1008 (Fed. Cir. 2014) (rejecting patentee's arguments that "thousands, if not millions of preselected Bingo numbers are handled by the claimed computer program, making it impossible for the invention to be carried out manually" because the claims were not limited to such form of complexity).

Thus, it is evident that the claimed steps seek to cover the broad idea of concept-based ranking of search results on a computer. This is precisely the type of general abstract idea that the *Alice* court sought to exclude from patent eligibility. *See Alice*, 134 S. Ct. at 2354 (explaining that the concern with the patenting of abstract ideas is one of "preemption" – if a patent claim is directed to an abstract idea, as opposed to a specific implementation, the patent impermissibly threatens future innovation); *Intellectual Ventures*, 792 F.3d at 1370 ("Steps that do nothing more than spell out what it means to 'apply it on a computer' cannot confer patent-eligibility.") (quoting *Alice*, 134 S.Ct. at 2355).

Both the Federal Circuit and the District of Delaware have found claims with similar limitations and subject matter as the '717 patent to be impermissibly abstract. For instance, in *Electric Power Group., LLC v. Alstom S.A.*, the Federal Circuit assessed patent claims directed to the analysis of events on an electric power grid. No. 2015-1778, --- F.3d ---, 2016 WL 4073318, at *3 (Fed. Cir. Aug. 1, 2016). Similar to the claims of the '717 patent, the claims there required,

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among other things, "receiving a plurality of data streams," "detecting and analyzing events in real-time," "displaying the event analysis results and diagnoses of events," and "deriving a composite indicator of reliability." *Id* at *1-2. The Federal Circuit explained that:

- "[W]e have treated **collecting information,** including when limited to a particular content ... as within the realm of abstract ideas." *Id.* at *3 (citing *Internet Patents*, 790 F.3d at 1349; *OIP Techs.*, 788 F.3d at 1363; *Content Extraction* 776 F.3d at 1347; *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d at1370 (Fed. Cir. 2011))

- "[W]e have treated **analyzing information by steps people go through in their minds**, or by mathematical algorithms, without more, as . . . within the abstract-idea category." *Id.* (citing *TLI Commc'ns*, 823 F.3d at 613; *Digitech*, 758 F.3d at 1351; *SmartGene, Inc. v. Advanced Biological Labs.*, SA, 555 F. App'x 950, 955 (Fed. Cir. 2014); *Bancorp*, 687 F.3d at 1278; CyberSource, 654 F.3d at 1372; *SiRF Tech., Inc. v. Int'l Trade Comm'n*, 601 F.3d 1319, 1333 (Fed. Cir. 2010); *Mayo Collaborative Serve v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1301 (2012); *Parker v. Flook*, 437 U.S. 584, 589–90 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)); and

- "[W]e have recognized that merely **presenting the results of abstract processes** of collecting and analyzing information, without more . . . is abstract." *Id.* (citing *Content Extraction*, 776 F.3d at 1347; *Ultramercial, Inc. v. Hulu*, LLC, 772 F.3d 709, 715 (Fed. Cir. 2014)).

Because the asserted claims were no more than a "combination of … abstract-idea processes," the Federal Circuit concluded that the claims as a whole were directed to patent-ineligible subject matter. *Id.* at *4. So too here.

Similarly, in *VideoShare*, this Court held that claims directed to "receiving . . . a web page," "executing . . . an automated function," "converting a video file into a streaming video file," "generating an identification tag" and "embedding the identification tag . . . into a web page" were too abstract to be patent-eligible. 2016 WL 4137524, at *1, 7. The Court explained that all of the claimed steps could be performed manually. *Id.* at *7 Accordingly, the claims were not patent-eligible because they "merely automate a sequence of known steps using conventional technology so that a human is not burdened with various manual steps." *Id.*

As with claims that were held to be patent-ineligible in *Electric Power* and *VideoShare*, the independent claims of the '717 patent recite merely a combination of abstract processes that automate a series of steps so that a human is not burdened with the manual process of sorting and ranking search results.[3] Accordingly, the independent claims fail the first prong of the *Alice* test.

B.   The Independent Claims of the '717 Patent Fail the Second Prong of *Alice*

Alice explains that, once the court decides that the claim is directed to an abstract idea, it must "determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 134 S.Ct. at 2357 (quoting *Mayo*, 132 S. Ct. at 1298). "Well understood, routine, conventional activit[ies]" or technology—including a general-purpose computer, computer network, and storage—does not provide an inventive concept. *Id*. at 2357-59 (quoting *Mayo*, 132 S. Ct. at 1294) (alteration in original). "Thus, if a patent's recitation of a computer amounts to a mere instruction to implement an abstract idea on a computer, that addition cannot impart patent eligibility." *Id.* at 2358 (internal citation and quotation marks omitted). The claims must be directed to more than performing generic, conventional functions by a general purpose computer—they should "purport to improve the functioning of the computer itself." *Id.* at 2359-60 (holding that generic computer implementation was "not 'enough' to transform an abstract idea into a patent-eligible invention") (quoting *Mayo*, 132 S. Ct. at 1297); *see also buySAFE*, 765 F.3d at 1355 ("The claims' invocation of computers adds no inventive concept. The computer functionality is generic—

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[3] Apparently recognizing that the '717 patent claims are vulnerable under 35 U.S.C. § 101, Blackbird alleges in its Complaint that the '717 patent is directed towards an unconventional improvement in the functionality of a computer rather than a task that a computer performs. (See D.I. 1 at ¶ 11). Blackbird, however, provides no facts to support this allegation. As a matter of law, Blackbird's unfounded and conclusory allegation cannot save the claims of the '717 patent from being found patent-ineligible. *See Twombly*, 550 U.S. at 555; *Johnson v. Del. Dep't of Labor*, C.A. No. 12-653-GMS, 2014 WL 3828439, at *3 (D. Del. Aug. 1, 2014).

indeed, quite limited: a computer receives a request for a guarantee and transmits an offer of guarantee in return. There is no further detail.").

Here, the elements recited in independent claims 1 and 16 fail to add any inventive concept or meaningful limitation to transform the abstract idea into patent-eligible subject matter. The claims recite only generic computer elements, such as a "processing unit," a "memory," a display device" and a "program module." Indeed, the '717 patent's specification makes clear that these computer elements are entirely ordinary and conventional. For instance, the specification states that the "processing unit 3 can be any processor that is typically known in the art" (*id*. at 4:32-36); "[t]he memory storage device . . . can be a storage device that is known in the art" (*Id*. at 4:38-42); and "[t]he display device 6 is a CRT, LCD monitor, etc. . . ." (*id*. at 4:52-54). Likewise, the claimed "program module" is nothing more than a device "stored in the memory storage device 4 and operative to provide instructions to [the] processing unit." *Id*. at 4:60-63.

The problem that the'717 patent was purportedly attempting to solve was also not one unique to a computer environment in general or the Internet in particular. *Cf. DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. Dec. 5, 2014). In *DDR Holdings*, the Federal Circuit held claims to be patent-eligible because they overcame "a problem specifically arising in the realm of computer networks." *Id.* at 1257. Unlike the claims in *DDR Holdings*, however, the claims of the '717 patent are not directed to a technological solution to a problem unique to computer networks. *See In re TLI Commc'ns*, 823 F.3d at 613 (distinguishing *DDR Holdings* because claims at issue did not "solve 'a challenge particular to the Internet'") (citation omitted). Rather, they are directed to a process that expedites the very same sorting and ranking steps that humans are able to perform using their minds. Indeed, the '717 patent concedes that humans

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have always been capable of sorting and ranking documents - just not as efficiently as a computer when a large set of documents is involved. D.I. 1-1 at 1:45-65.

The only arguably "technological" component in the claims that aids in expediting the ranking of search results is the "concept knowledge base," which is used to determine one or more concepts related to the search query. But the '717 specification concedes that the concept knowledge base can be "manually construct[ed]." D.I. 1-1 at 6:14-15. Thus, like all the other elements enumerated in the independent claims, the "concept knowledge base" is merely a computer representation of processes that can be performed by humans.

The independent claims of the '717 patent, therefore, do not recite any specialized hardware or software capable of transforming the abstract idea into patent eligible subject matter. *See Open Text S.A. v. Box, Inc.*, 78 F. Supp. 3d 1043, at 1048 (N.D. Cal. 2015) (finding no inventive concept when "it is apparent from the patent itself that the[] implementation-specific elements were known prior to the invention."); *Netflix, Inc. v. Rovi Corp.*, 114 F. Supp. 3d 927, 934 (N.D. Cal. 2015) ("While a computer (even a generic one) is undoubtedly a 'machine,' its inclusion in a patent claim cannot be sufficient for § 101 purposes . . . ").

C.   **The Independent Claims of the '717 Patent Also Fail the "Machine-or-Transformation" Test**

Courts may also look to the "machine-or-transformation" test to inform the patent-eligibility analysis. *See Bancorp*, 687 F.3d at 1278 (holding that the machine-or-transformation test remains an important clue in determining whether some inventions are processes under § 101). Under the "machine-or-transformation" test, a claimed process can be patent-eligible if "(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing." *In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008) (en banc), *aff'd on other grounds*, 561 U.S. 593 (2010).

Here, an analysis of the "machine-or-transformation" test further demonstrates that the independent claims are patent-ineligible. First, the claims of the '717 patent are not "tied to a particular machine or apparatus." *Bilski*, 545 F.3d at 954. Rather, as discussed above, the claims recite only generic computer equipment that is not tied to any specific novel or specialized machine or apparatus. As the Federal Circuit has explained, an abstract idea implemented on a generic computer does not satisfy the machine-or-transformation test. *Bancorp*, 687 F.3d at 1273, 1278 (affirming ruling that a general-purpose computer does not satisfy the machine prong of the "machine-or transformation" test).

Second, the independent claims also do not "transform[] a particular article into a different state or thing." *Bilski*, 545 F.3d at 953. Rather, the claims simply recite steps for receiving search results and then displaying them based on their relevance to a concept. There is no transformation of the search results into a different state or thing. *See CyberSource,* 654 F.3d at 1375 ("[M]ere manipulation or reorganization of data . . . does not satisfy the transformation prong.").

Accordingly, the independent claims of the '717 patent satisfy neither the *Alice* test nor the machine-or-transformation test. They are, therefore, invalid as a matter of law.

D.   The Asserted Dependent Claims Do Not Add Any Limitations That Would Render Them Patentable

In addition to the independent claims, Plaintiff also asserts dependent claims 10 and 25. These dependent claims, however, do not add any meaningful limitations that change the patent eligibility analysis described above.

Claims 10 and 25 — which depend from claims 1 and 16, respectively — are directed to the additional steps of "generating a first document vector" and "generating a second document vector." D.I. 1-1 at 18:36-41, 20:23-34. But, as the '717 patent specification explains, a

document vector is a representation of the "frequency of unique terms in the returned document." *Id.* at 12:43-45. Any person is capable of calculating the number of times that a term appears in a document. Thus, like the independent claims, dependent claims 10 and 25 are directed to an abstract idea and are therefore patent-ineligible. *See, e.g., Digitech* 758 F.3d at 1351 ("If a claim is directed essentially to a method of calculating, using a mathematical formula, even if the solution is for a specific purpose, the claimed method is nonstatutory.").

Dependent claims 10 and 25 also specify generic techniques for creating a document vector. They do not identify any novel machine or apparatus for performing this step. Indeed, the limitations recited in dependent claims 10 and 25 are implemented using the same generic computer equipment and software as the independent claims. As such, the additional limitations recited in claims 10 and 25 also do not add any limitations that would transform the abstract idea of sorting documents based on relevance into patent eligible subject matter. *See Mayo*, 132 S. Ct. at 1300; *see also In re Chorna*, No. 2016-1324, --- F. App'x ----, 2016 WL 4205969, at *4 (Fed. Cir. Aug. 10, 2016) (instructing a generic computer to perform a function without disclosing an improvement to the functioning of any other technology does not transform an abstract idea into a patent-eligible invention). Accordingly, like the independent claims, dependent claims 10 and 25 are invalid under 35 U.S.C. § 101 because they are directed to patent-ineligible subject matter.

VI.   CONCLUSION

Because the asserted claims of the '717 patent simply recite using a computer to apply the abstract idea of sorting documents based on relevancy, they are directed to patent-ineligible subject matter and are thus invalid under 35 U.S.C. § 101. The Court should dismiss Plaintiff's

Complaints in the above-captioned related cases under Federal Rule of Civil Procedure 12(b)(6)

for failure to state a claim upon which relief may be granted.

Respectfully submitted,

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